



## Critical Thinking in a Higher Education Functional English Course

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**Abstract:** Critical thinking is seen as a highly desirable way of thinking that needs to be encouraged in all areas of higher education. However, it is not easy to conceptualise critical thinking in ways that can help in its development and in its assessment. Recent policy documents in Pakistan have laid emphasis on the development of critical thinking skills in higher education and The Higher Education Commission of Pakistan worked with USAID to publish new course guidance for Functional English, a mandatory course, as a part of introducing a revised four year BEd honours programme. The course includes aims like giving reasons to justify a view, distinguishing between fact and opinion and enabling students to develop argumentation skills. All these aims require students to develop skills involving questioning: asking questions of what is provided, who has provided it and what its meaning might be, key features of critical thinking.

**Keywords:** Critical thinking, higher education, English course.

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### Introduction

Numerous studies have emphasised the importance of developing critical thinking at both school and university stages of education (McPeck, 1981; Siegel, 1980, 1984; Norris, 1985; Fisher and Scriven, 1997; Cassum *et al.*, 2013; Al-Osaimi *et al.*, 2015). In Pakistan, the Higher Education Commission (with responsibility for Higher Education) has reflected this in noting problems with courses and with assessment (HEC medium term development framework II, 2010-2015). However, the development of critical thinking skills in Higher Education may well depend on what happens at the school level in Pakistan where the emphasis is on the transmission of knowledge and its memorisation (Akbar *et al.*, 2013; Mahmood *et al.*, 2013; Sheikh *et al.*, 2013). Thus, teacher education is seen as an important element in encouraging change and considerable re-structuring has started. However, the curriculum and its assessment have both tended to ignore wider educational goals like the development of critical thinking skills (Government of Pakistan, 2002, 2009; World Bank 2006).

Arising from these developments, a new 4 years BEd degree was introduced (EDC, 2012) and 22 universities and 75 teacher education colleges have been supported in their planning in its implementation. The aim was to move the teacher focus from the curriculum to be taught to the students to be taught. Nonetheless, classroom observation rarely revealed the sought-for changes (Akbar *et al.*, 2013; Mahmood *et al.*, 2013; Sheikh *et al.*, 2013). As part of the developments, the Higher Education Commission also worked with USAID to publish new course guidance for Functional English, a mandatory course in teacher education programmes (HEC, 2012). This seeks to move the learning from a grammar-based memorisation emphasis, seeking to enhance the communication skills of the students. Specifically, HEC (2012) specified aims in this course that reflected aspects of critical thinking, all set within the wider aims and objectives by the Higher Education Qualifications Framework (HEC, undated) for teacher education qualifications which included a specific aim to develop, '*cognitive skills to exercise critical thinking and judgment in developing new understanding*' (p.3).

### The Nature of Critical Thinking

Critical thinking has been conceptualised in many ways. One approach has been to list different kinds of thinking in order to build up an overall picture. This has generated a wide array of categories and Habeeb (1996) and, later, Jerwan (2009) have offered collations of these categories, some of which might constitute critical thinking. Another approach

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is to look for various types of thinking (Al-Atoom *et al.*, 2007; Abo Gado and Nowfal, 2007): there critical thinking is often seen as opposite to creative thinking. This approach makes the assumption that certain types of thinking are, indeed, opposite, an approach challenged by the findings of Hindal *et al.* (2009) in a related area.

Another way to consider critical thinking is to look for central features of the process. Thus, mental skills are involved but there also has to be a willingness to employ the skills (Coles and Robinson, 1991). In this way, Al-Osaimi *et al.* (2014) offered an operational description for critical thinking and this approach provides simplicity, thus guiding assessment. Al-Osaimi *et al.* (2014) conceptualise critical thinking more in terms of a fundamental mindset, to be seen as a developing way of thinking rather than a collation of skills. However, this mindset can be observed often in terms of the skills demonstrated and predispositions held.

Following an extensive review of the literature, Al-Osaimi *et al.* (2014) took the ideas of Paul (1990) further in suggesting looking at '*uncritical thinking*'. Uncritical thinking can be conceptualised in terms of an unwillingness to ask questions, simply accepting what is given. Thus, critical thinking is seen as encompassing the ability to ask specific types of questions along with a willingness to do so. Uncritical thinking can be seen as making hasty and potentially biased judgements, reflecting either personal orientation or unquestioning acceptance of the views of others; shows unwillingness and/or inability to weigh arguments, challenge statements or interpretations. By contrast, critical thinking involves considering aspects of accuracy and ambiguity in the information given, including the ability and willingness to evaluate arguments, evidence and interpretation, identifying underlying assumptions, as well as requiring judgment based on specific criteria and evidence and the ability to assess evidence and sources of information.

Thus, critical thinking was seen as a mindset where the focus is on asking pertinent questions, the questions being directed at what is presented, the source of the information and what the information might mean. This kind of questioning has been described as '*productive*' questioning (DiYanni, 2016, p. 4) and implies asking questions which include judging the quality of evidence, evaluating the credibility of sources, being open-minded and aware of implicit assumptions as well as considering the viewpoints of others (Manan and Mehmood, 2015). While several different words and phrases are used in the literature, Al-Osaimi *et al.* (2014) referred to '*directed questioning*'. This implied that the questions have to be focussed in specific ways: at information presented, its source, its meaning and interpretation.

This approach emphasises that asking questions is the central skill related to critical thinking, the questions being specifically directed. This offers a framework for interrogating any formal teaching and learning situations well as wider life. It applies to all subject areas and can be seen in terms of both an ability and a willingness to ask directed questions related to the accuracy, validity and relevance of the information given; questions related to the source of the information, biased or with some agenda, questions related to the interpretation of the information, its meaning and potential misunderstanding.

The conceptualisation of critical thinking is shown in figure 1.

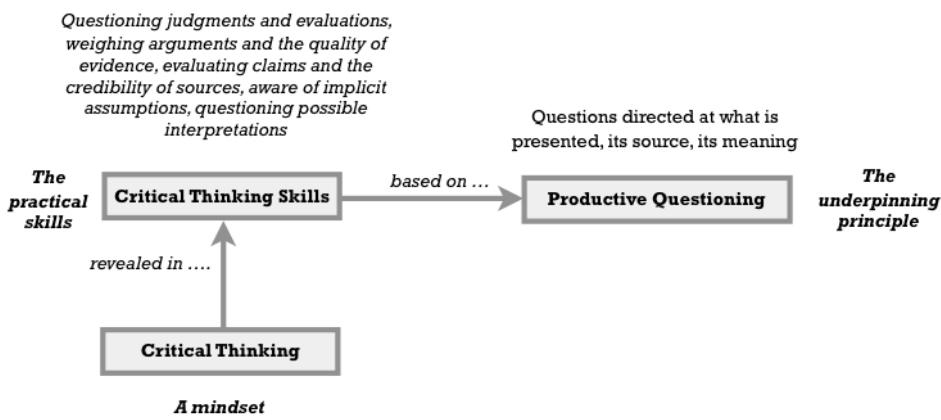


Figure 1 The Nature of Critical Thinking

Functional English emphasises communication skills but this raises major issues about whether what the receiver gains from the communication is what the communicator intended. Indeed, did the communicator have an agenda? Did the receiver possess a bias? Was the form of language used the best? Would alternative ways of communicating convey ideas more effectively? These are all outcomes from the development of a questioning mindset where the questions are directed appropriately.

Two studies in Pakistan (Saeed *et al.*, 2012; Cassum *et al.*, 2013) have emphasised the importance of critical thinking in higher education. These studies both note the major US study (Facione, 1990, 2000) but are well aware of the dominance of a teacher-centred culture in Pakistan where the teacher is seen as the source of the information and the learner has the role of memorising as much as possible. The studies both recognise the key role of the kind of directed questioning described above.

Despite the key goal in seeking language proficiency, many have emphasised the importance and potential of developing higher-order thinking skills in foreign language classrooms (Chamot, 1995; Tarvin and Al-Arishi, 1991; Chapple and Curtis, 2000; Davidson, 1994, 1995). These include capability to think both critically and creatively. In Pakistan, a starting point is to develop course guidelines that overtly support skills like critical thinking while providing the Higher Education teachers with resources that can stimulate the development of the skill. However, changing the assessment so that evidence of critical thinking skills can be rewarded may prove more daunting.

### *The Study*

As part of a larger study, the work described here focusses on students undertaking a Functional English course which was re-cast to introduce, among other things, an emphasis on critical thinking. This course, which involved a radical departure from previous courses, is a mandatory course for the BEd teacher training degree. Because of this, the course offers an opportunity to make a major impact if it succeeds in highlighting and encouraging the development of critical thinking among students who will later become school teachers.

The aim of the entire study was to explore what was happening by observing classes as well as consulting the students and their teachers. The class activities generated questions in students as they were faced with tasks to be completed and the development of better ways to communicate. Thus, patterns of talk (like: initiate, respond, follow-up) were neither pre-determined or analysed (see Nunan, 1987). In the light of the findings, the next stage was to see what features of the course were important in encouraging or hindering the development of critical thinking skills and to see what further developments might usefully be made. This paper describes a gathering of the perceptions of the students by means of questionnaires (in English). These were designed to offer an overview of the current situation and these were used with a sample of 140 students at the start and, again, at the end of the course, the same questionnaire being used on both occasions. This was the entire population in the five centres where the new course was offered in the Hazara area in KP province in Pakistan. However, the 140 students were typical of those undertaking the BEd course across Pakistan (the researcher was not involved in the course development or implementation).

The aim of the student questionnaire was to explore how the students saw the learning of English, from the perspective of development of critical thinking. Thus, before the course, students were reflecting back on their previous English course (Intermediate level). After the Functional English course, students were reflecting back on the course they had just completed. The aim was to see if there were any clear differences, related to the development of critical thinking. A pilot was carried out with ten students, not part of the sample, who were asked to complete and comment on the questionnaire, checking for clarity and ambiguities, to ensure that the questions were being understood in the way intended. Only very minor changes were required. It is important to note that nothing absolute was being measured (Reid, 2015). The analysis compared the response patterns before and after to see if there were any changes in perceptions that might be attributed in any way to the new course, with respect to the development of critical thinking. In that before undertaking the Functional English course, the students were very unlikely to have experienced any courses where the emphasis had been on critical thinking, the questionnaire could not focus on critical thinking overtly. Thus, the questions explored the area tangentially.

The questionnaire contained 9 questions, only 6 of which will be considered here. Three questions are not discussed in this paper in that they related to other issues. The response patterns are presented as percentages for clarity in the tables that follow, although all statistical calculations used frequencies. The responses before and after the Functional English course are compared using chi-square as a test of goodness-of-fit, as exemplified in Ali and Reid (2012).

Question 2 used the semantic differential format (Osgood *et al.*, 1957), asking them to think of their previous English course and evaluate it (table 1).

*Table 1 Question 2*

N = 140		Positive	%	Negative	$\chi^2$	df	Significance
I enjoyed the classes	Total Before	41	30	20	4	4	20.3
	Total After	56	32	8	0	4	
I found the work demanding	Total Before	34	23	23	14	7	41.1
	Total After	49	34	12	3	2	

Table 1 *Continued*

N = 140		Positive	%	Negative	$\chi^2$	df	Significance
The work was relevant to my other studies	Total Before	19	20	32	16	13	
	Total After	34	15	16	12	23	41.9
I was encouraged to think and question	Total Before	24	27	31	14	4	
	Total After	62	26	8	1	1	124.5
I was encouraged to speak in English	Total Before	26	41	19	4	10	
	Total After	63	19	12	4	2	96.3
I feel confident in communicating in English	Total Before	16	26	21	23	14	
	Total After	15	36	28	14	8	16.0
I liked the way the course was taught to me	Total Before	23	31	22	14	9	
	Total After	57	24	11	3	4	97.6
The course gave me scope for thinking	Total Before	15	7	30	29	19	
	Total After	35	21	6	14	24	112.2
I had access to online materials	Total Before	19	9	19	9	44	
	Total After	57	14	11	6	12	148.6

In looking at the changes seen after the course compared to before, the Functional English course clearly was seen to encourage thinking and questioning while giving scope for thinking. In every item, the students are very markedly more positive after the course compared to their views in advance (some of the chi-square values are extraordinarily high). The fourth item ('I was encouraged to think and question') revealed a marked change in perception, showing that the new course was seen very differently when compared their previous studies.

The responses to the items in question 2 are found to correlate significantly with each other (Kendall's Tau-b correlation). This suggests that there may well be common reasons underpinning the way the students have responded. This was explored using Principal Components Analysis, with Varimax Rotation, using SPSS, following the approaches outlined in Reid (2013). This revealed four factors, accounting for 67% of the variance. One of the four factors relates to thinking. The key feature of importance here that the scope for thinking was one underlying factor which influenced how they evaluated the courses.

Question 4 explored similar areas to question 2 but using the Likert format (Likert, 1932), offering complementary insights (table 2).

Table 2 Question 3

N = 140		Positive	%	Negative	$\chi^2$	df	Significance
I found the course interesting	Total Before	22	53	21	2	2	
	Total After	46	39	11	0	5	47.5
ICT would help me to learn better	Total Before	46	41	11	2	1	
	Total After	56	33	9	1	1	6.5
I feel my language skills have been enhanced	Total Before	16	49	24	8	3	
	Total After	41	41	12	2	3	67.0
I prefer to learn the facts and then be tested on what I remember	Total Before	36	31	20	11	1	
	Total After	73	21	4	2	1	84.9
In order to pass my examinations, I need to study just what the teacher tells me	Total Before	8	38	14	25	15	
	Total After	15	31	26	19	9	31.1
The course has helped me to understand the structure of language	Total Before	21	44	19	13	3	
	Total After	31	55	11	0	2	29.8
The lecture course challenged me to think and to question	Total Before	22	46	21	11	1	
	Total After	50	34	9	2	4	65.0
All one has to do in this course is to memorise things	Total Before	12	37	23	19	9	
	Total After	31	33	15	13	9	46.8

Table 2 Continued

N = 140		Positive	%	Negative	$\chi^2$	df	Significance
I have improved my listening and reading skills in English more than I expected	Total Before	16	41	19	22	3	
	Total After	22	47	21	4	6	p < 0.001
The course has helped me to analyse the way language is constructed	Total Before	13	51	25	6	5	
	Total After	23	56	16	4	1	p < 0.001
In exams, I like questions which give me the scope to go beyond what is taught and show my ability to think	Total Before	45	36	10	7	1	
	Total After	53	33	10	4	1	n.s.

As before, the students are markedly more positive after the course compared to their views in advance in all but two items. Of great interest is the fact that they see the lecture course challenging them to think and question, but they still see their assessment in terms of memorisation and recall. With positive correlations observed between items, the response patterns were explored using Principal Components Analysis, again using Varimax Rotation. The analysis identified four main factors (accounting for 64% of the variance) that are important as students evaluate English courses, one of which related to opportunities to think.

The factors observed in questions 2 and 4 make considerable sense, implicitly supporting the validity of the response patterns of the questionnaire. However, of greater importance is the finding that one factor which occurred in *both* question 2 and 4 is that students evaluated the courses in terms of the extent to which they offered scope for thinking. This is important for it shows that students want to think and, implicitly, the fact that their previous educational experiences have been dominated by the demand for memorisation and recall has not dampened their desire to think about what they are learning.

Question 5 offered the students ten possible reasons for studying English as a second language and students were asked to tick all the reasons true for them. One of the options specifically refers to thinking critically as a goal for study. The aim of the question was to see whether this option ranked higher following completion of this Functional English course.

Given ten reasons they were asked to tick all that applied to them (table 3).

Table 3 Question 5

Reasons	% Before	% After	Difference
It is an important subject in my main discipline	79	80	
It is the main language, in Pakistan, for official communication	65	67	
A functional English course will help me in my professional career	91	96	p < 0.05
I think this course will help me to understand the world	61	64	
I am doing what parents encouraged me to do	21	25	
It is an easy language	11	14	
Most books are in English	70	80	p < 0.01
This course helps me to think critically	48	65	p < 0.001
I enjoy learning English	52	61	p < 0.05
I think my course will lead to good jobs	85	86	

While views have not changed much, their rating for the course helping them to think critically has increased markedly ( $\chi^2 = 16.2$ , df1, p < 0.001). In looking at gender differences, fewer males chose this option before but, at the end of the course, *more* males chose this option compared to the females. Thus, the Functional English course has clearly emphasised the importance of critical thinking and the effect has been much more marked on the men.

In question 6, the students were asked to rate themselves on eight skills related to the learning of English (table 4).

Table 4 Question 6

N = 140		Excellent	Good	Fair	Poor	$\chi^2$	df	p
Understand instructions in English	Before	6	65	26	3	36.0	2	p < 0.001
	After	19	61	19	1			
Make a presentation in your class in English	Before	4	30	54	12	9.5	2	p < 0.01
	After	8	38	46	9			
Take part in discussions in English	Before	5	33	52	10	47.0	3	p < 0.001
	After	7	59	29	6			
Write a formal letter in English	Before	14	45	39	3	24.8	2	p < 0.001
	After	19	61	19	1			
Read text in English with good understanding	Before	19	50	26	5	14.4	2	p < 0.001
	After	27	55	18	0			
Express your feelings in English	Before	10	36	45	9	6.2	2	p < 0.05
	After	8	46	44	2			
Narrate a story, using a picture	Before	11	38	36	15	8.0	3	p < 0.05
	After	15	33	43	9			
Punctuate a text in English	Before	11	44	36	10	29.1	3	p < 0.001
	After	24	34	36	6			

In all eight skills, the students rate themselves significantly better after the course in Functional English. Specifically, five skills show very marked growth ( $p < 0.001$ ) and all these might be seen as depending, at least in part, on critical thinking.

Questions 7 and 8 were open-ended questions. Question 7 asked the students to indicate any other benefits they felt that had gained from the course just completed (Intermediate before; Functional English after) while questions 8 asked them to imagine that they were going to teach the course, inviting them to indicate what one thing they would like to introduce. The questions were designed to allow the students to indicate important features of such courses but, even more importantly, to indicate what features they wanted or wanted to be developed further. The issue is whether completing the Functional English course changed the priorities they identified, specifically in relation to critical thinking.

The student responses were analysed by identifying the key words and phrases they used and comparing the frequencies of the ideas they mentioned. The most marked observation from the student responses was the fact that the sheer number of responses *after* Functional English course was several times higher than *before* (over 850 phrases used after compared to about 260 before when listing benefits; nearly 500 phrases for what they wanted compared to less than 140 before). In simple terms, they appreciated what they had just experienced in the Functional English course and wanted more of the same approach and emphasis.

The frequency of use of the key words and phrases is illustrated in table 5.

Table 5 Questions 7 and 8

Phrases Used	Appreciated Features		Desired Features	
	Before	After	Before	After
Basic skills (reading, writing, listening, speaking)	99	75	11	3
Grammar and vocabulary	15	1	5	2
Language skills (unspecified)	10	29	0	0
Thinking skills	1	56	0	4
Activities, involvement, participation	0	5	5	44
Understanding	7	11	0	2
Words like: improved, enhanced, good, developed	10	97	0	0

Table 5 *Continued*

<b>Phrases Used</b>	<b>Appreciated Features</b>		<b>Desired Features</b>	
	<b>Before</b>	<b>After</b>	<b>Before</b>	<b>After</b>
Confidence	4	12	0	0
Group work, discussion	1	5	9	92

Following their experiences with the Functional English course, the students' views relating to basic skills were not much altered. However, they strongly appreciated the place of thinking skills (a few specifically mentioned critical thinking) and they wanted more group work and discussion opportunities. Indeed, they wanted increased participation in their own learning.

### Conclusions

Given that the students could not comment on the Functional English course *before* they had undertaken the course and had little experience of any opportunities to think critically in previous courses, the items in the questionnaire approached the theme of critical thinking tangentially. The aim was to compare their responses *before* and *after* the course to see where there were statistically significant changes. It has to be recognised that a questionnaire only measures how respondents see the issues under exploration, offering no objective measurement (Reid, 2015). In addition, there is no certainty that respondents grasped critical thinking in the way intended. However, the questionnaire has offered considerable tangential evidence that students not only wanted the scope to think but also saw critical thinking as a feature of the new Functional English course.

The outcomes of the two factor analyses relate neatly to the observation of the student appreciation of the emphasis on the development of thinking skills in the Functional English course. Despite their previous education experiences being largely centred around the mastery of information and its recall in examination settings, the students wanted the scope to be able to think. They wanted to ask questions, work in groups, be involved in their own learning. The class activities generated questions in students as they were faced with tasks to be completed and the development of better ways to communicate. Thus, patterns of talk (like: initiate, respond, follow-up) were neither pre-determined or analysed (see Nunan, 1987). In saying this, they saw no problems with the mastery of the basic skills in learning English. Indeed, they show increased appreciation for the language skills being developed in the Functional English course.

In simple terms, the students appeared to want the scope to think and to think critically about their learning. They evaluated their course experience, at least in part, in terms of the amount of scope it gave for such thinking. This is a very positive finding in that it shows that students are going to be positively disposed to the introduction of critical thinking as a feature of their learning, suggesting that students would welcome increased emphasis on critical thinking in their studies.

In the specific context of the BEd degree, the evidence gathered here suggests that the Functional English course, with its emphasis on skills like critical thinking, was being warmly received by the student population. Indeed, the scope for thinking, including critical thinking, was one feature of a course which underpinned student evaluation of the course. This is encouraging and holds implications that are wider than Functional English or one specific country. In Pakistan, the teacher is seen as the source of knowledge, not to be questioned. The role of the student is seen as that of absorbing as much knowledge as possible in unit time. Manan and Mehmood (2015) also noted that questioning is not encouraged and conformity is part of educational culture, a characteristic of many Asian cultures. The study here shows that despite their previous educational experiences, the students wanted the freedom to think and to think critically in relation to their learning.

In the wider literature in other subject areas, there is strong evidence that students find the continual emphasis on education being seen as the transfer of knowledge from the head of the lecturer to the heads of the students, to be memorised and recalled later, is being rejected by the student populations. Students wish to understand, to question, to debate, thinking critically about what they are learning and its meaning (see, for example, Johnstone *et al.*, 1981; Byrne and Johnstone, 1983; Mackenzie *et al.*, 2003; Clarkeburn *et al.*, 2000; Hoodbhoy, 2009; Al-Madani *et al.*, 2011; Al-Osaimi *et al.*, 2015). This offers scope to curriculum planners in the development of future courses where the development of critical thinking can be encouraged: students will respond positively.

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## References

Abu Gado, S. M. and Nowfal, M. B. (2007). *Teaching thinking theory and practice*, Jordan Amman: Daralmisr Publishing and Distribution.

Akbar, R. A., Akhtar, M., Hussain, A., and Abiodullah, M. (2013). *Beliefs and Practices of Teacher Educators Teaching B.Ed (Hons) and ADE in Universities and Affiliated Colleges in Punjab*, a paper presented at the Education Conference on Teacher Recruitment, Preparation, and Policy held at University of Karachi, Pakistan on August 20-21, 2013.

Al-Atoom, A. (2004). *Cognitive Psychology: Theory and Practical Training*, Amman, Jordan: Al-dar Al-Massira.

Ali, A.A. and Reid, N. (2012) Understanding Mathematics Some Key Factors, *European Journal of Educational Research*, 1(3), 283-299.

Almadani, K., Reid, N. and Rodrigues, S. (2011) Quality Assurance: a Pressing Problem for education in the 21st century, *Problems of Education in the 21st century*, 32, 9-22

Almadani, K., Reid, N. and Rodrigues, S. (2012). What examinations test, *Problems of Education in the 21st century*, 1(1), 6-19.

Al-Osaimi, K.H., Reid, N., and Rodrigues, S. (2014). Critical Thinking - Can it be Measured? *Journal of Science Education*, 15(1), 30-36.

Al-Osaimi, K.H., Reid, N., and Rodrigues, S. (2015). Critical Thinking - Can it be Developed? *Journal of Science Education*, 15(2), 57-75.

Buskist, W. and Irons G.J. (2008). *Simple strategies for teaching your students to think critically*. In D. S. Dunn, J. S. Halonen, and R. A. Smith(Ed), *Teaching Critical Thinking in Psychology: A Handbook of Best Practices* (pp.49 -57). UK: Blackwell Publishing Ltd.

Cassum, S. H., Profetto-McGrath, J., Gul, R. B., Ashraf, D., and Kauser, S. (2013). Multidimensionality of critical thinking: A holistic perspective from multidisciplinary educators in Karachi, Pakistan, *Journal of Nursing Education and Practice*, 3(7), 9-23.

Chamot, A. (1995). Creating a community of thinkers in the ESL/EFL classroom, *TESOL Matters*, 5(5), 1-16.

Chapple, L., and Curtis, A. (2000). Content-based instruction in Hong Kong: Student responses to film, *System*, 28, 419-433.

Coles, M.J. and Robinson, W.D. (1991). *Teaching Thinking: What is it? Is it Possible?* In M.J. Coles and W.D. Robinson (eds.) (1991) *Teaching Thinking*. Bristol: Bristol Classical Press

Davidson, B. (1994). Critical thinking: A perspective and prescriptions for language teachers, *The Language Teacher*, 18(4), 20-26.

DiYanni, R. (2016). *Critical and Creative Thinking: A Brief Guide for Teachers*, Chichester, West Sussex: John Wiley and Sons.

Facione, P.A. (1990). *Critical Thinking: A Statement of Expert Consensus for Purposes of Educational Assessment and Instruction, 'The Delphi Report'*, The California Academic Press, California.

Facione, P. A. (2000). The disposition toward critical thinking: Its character, measurement, and relation to critical thinking skill, *Informal Logic*, 20(1), 61-84.

Government of Pakistan (2002). *Task Force on Improvement of Higher Education in Pakistan*, Islamabad.

Government of Pakistan (2009). *HEC medium term development framework II, 2010-2105*, [hec.gov.pk/InsideHEC/Documents/MTDF%202011-15%20FINAL.pdf](http://hec.gov.pk/InsideHEC/Documents/MTDF%202011-15%20FINAL.pdf)

Habib, M. A. (1996). *Thinking: Theoretical Foundation and Strategy*, Cairo: Arabic Renaissance Library.

HEC (undated). *Pakistan Qualification Framework*, Higher Education Islamabad. Levels and Learning outcomes of Higher Education Commission, page 3-4. ([www.hec.gov.pk](http://www.hec.gov.pk))

HEC (2012). *Functional English I, Course Guide, Associate Degree in Education/BEd (Hons) Elementary*, Higher Education Commission, Islamabad.

Hindal, H., Reid, N. and Whitehead, R. (2013). A Fresh Look at High Ability, *International Journal of Instruction*, 6(1), 59-76.

Hoodbhoy, P. (2009). Pakistan's Higher Education System—What Went Wrong and How to Fix It, *The Pakistan Development Review*, 48(4 Part II), 581- 594.

Jerwan, F. (2009). *Teaching Thinking: Conception and Application*, Amman, Jordan: Dar Alfiker.

Likert, R. (1932) A technique for the measurement of attitudes, *Archives of Psychology*, 140, 5-55.

Mahmood, M. K., Iqbal, M., Naseem, Z., Khan, J. I., and Afzal, S. (2013). *Pedagogical Practices of Teacher Educators in Bachelors of Education (B. Ed) Honors and Associate Degree in Education (ADE) Programs*, a paper presented at the

Education Conference on Teacher Recruitment, Preparation, and Policy held at University of Karachi Pakistan on August 20-21, 2013.

Manan S.A, Mehmood T. (2015). Culture and Critical Thinking in Classroom: Narratives from University Students in Pakistan, *Asia Pacific Journal of Social Science*, 1(3), 110-134.

Nunan, D., (1987). Communicative language teaching: Making it work. *ELT journal*, 41(2), 136-145.

Osgood, C. E., Suci, C. J. And Tannenbaum, P. H. (1957). *The measurement of meaning* (Urbana, IL, University of Illinois Press).

Paul, R. (1990). *Critical Thinking: What Every Person Needs to Survive in a Rapidly Changing World*, Rohnert Park, CA: Center for Critical Thinking and Moral Critique.

Reid, N. (2015). *Attitude Research in Science Education*, in I.M. Saleh and M.S. Khine, eds., Attitude Research in Science Education, 2nd edition, pages 3-44, Charlotte NC: Information Age Publishing Inc.

Saeed T., Khan S., Ahmed A., Gul R, Cassum S., and Parpio Y. (2012). Development of students' critical thinking: The educators' ability to use questioning skills in the baccalaureate programmes in nursing in Pakistan, *Journal of the Pakistan Medical Association*, 62(3), 200-203.

Sheikh, M. A, Chohan, B. I., Jawad, A., and Naseem, M., (2013). *An Exploratory Study of Assessment Practices in the B.Ed. (Honors) and ADE Programs in the Punjab*, a paper presented at the Education Conference on Teacher Recruitment, Preparation, and Policy held at University of Karachi Pakistan on August 20-21, 2013.

Tarvin, W., and Al-Arishi, A. (1991). Rethinking communicative language teaching: Reflection and the EFL classroom, *TESOL Quarterly*, 25(1), 9-27.

World Bank (2006). *A Millennium Learning Goal: Measuring Real Progress in Education*, compiled by Deon Filmer, Amer Hasan and Lant Pritchett, Centre for Global Development, World Bank.

**APPENDIX**

**Questionnaire Used at Start of Course**  
**Learning in English**

(1) Think of your use of **English in everyday life**  
*Tick one box on each line*

I never use English at home	<input type="checkbox"/>	I use English frequently at home				
I meet people who speak English	<input type="checkbox"/>	I never meet people who speak English				
I watch movies in English frequently	<input type="checkbox"/>	I never watch movies in English				
I rarely read books in English	<input type="checkbox"/>	I often read books in English				
I use English with my friends	<input type="checkbox"/>	I never use English with my friends				
I often listen to songs in English	<input type="checkbox"/>	I rarely listen to songs in English				

(2) Think of your **Intermediate English course**  
*Tick one box on each line*

I enjoyed the classes	<input type="checkbox"/>	I did not enjoy the classes				
I found the work demanding	<input type="checkbox"/>	I found the work straightforward				
The work was irrelevant to my other studies	<input type="checkbox"/>	The work was relevant to my other studies				
I was encouraged to think and question	<input type="checkbox"/>	All I had to do was to memorise what is taught				
I was encouraged to speak in English	<input type="checkbox"/>	I was not encouraged to speak in English				
I do not feel confident in communicating in English	<input type="checkbox"/>	I feel confident in communicating in English				
I liked the way the course was taught to me	<input type="checkbox"/>	I did not like the way the course was taught to me				
The course gave me little scope for thinking	<input type="checkbox"/>	The course gave me scope for thinking				
I did not have access to online materials	<input type="checkbox"/>	I had access to online materials				

(3) Think about the way **you like to learn.**  
*Tick one box on each line.*

	<i>Strongly Agree</i>	<i>Agree</i>	<i>Neutral</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
(a) I prefer to learn by reading books.	<input type="checkbox"/>				
(b) I have a good memory.	<input type="checkbox"/>				
(c) I like to understand things rather than simply memorise them.	<input type="checkbox"/>				
(d) I find I rely heavily on clear explanations from the teacher.	<input type="checkbox"/>				
(e) I learn best when I do things for myself.	<input type="checkbox"/>				
(f) I often see ideas in terms of mental pictures.	<input type="checkbox"/>				
(g) I am sure I shall pass my examinations.	<input type="checkbox"/>				
(h) I like using online resources for learning English	<input type="checkbox"/>				

(4) Think of the **English course you completed in Intermediate.**

	<i>Strongly Agree</i>	<i>Agree</i>	<i>Neutral</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
(a) I found the course interesting	<input type="checkbox"/>				
(b) ICT would help me to learn better	<input type="checkbox"/>				
(c) I feel my language skills have been enhanced	<input type="checkbox"/>				
(d) I prefer to learn the facts and then be tested on what I remember.	<input type="checkbox"/>				
(e) In order to pass my examinations, I need to study just what the teacher tells me.	<input type="checkbox"/>				
(f) The course has helped me to understand the structure of language	<input type="checkbox"/>				
(g) The lecture course challenged me to think and to question	<input type="checkbox"/>				
(h) All one has to do in this course is to memorise things.	<input type="checkbox"/>				
(i) I have improved my listening and reading skills in English more than I expected	<input type="checkbox"/>				
(j) The course has helped me to analyse the way language is constructed	<input type="checkbox"/>				
(k) In exams, I like questions which give me the scope to go beyond what is taught and show my ability to think.	<input type="checkbox"/>				

(5) Thinking of the **reasons for studying English as a second language.**  
*Tick all the reasons that are true for you*

<input type="checkbox"/> It is an important subject in my main discipline	<input type="checkbox"/> It is an easy language
<input type="checkbox"/> It is the main language, in Pakistan, for official communication	<input type="checkbox"/> Most books are in English
<input type="checkbox"/> A functional English course will help me in my professional career	<input type="checkbox"/> This course helps me to think critically
<input type="checkbox"/> I think this course will help me to understand the world	<input type="checkbox"/> I enjoy learning English
<input type="checkbox"/> I am doing what parents encouraged me to do	<input type="checkbox"/> I think my course will lead to good jobs

(6) Where do you rate yourself on your ability in the following tasks in English?

*Tick one box on each line*

	Excellent	Good	Fair	Poor
Understand instructions in English				
Make a presentation in your class in English				
Take part in discussions in English				
Write a formal letter in English				
Read text in English with good understanding				
Express your feelings in English				
Narrate a story, using a picture				
Punctuate a text in English				

(7) Write down any *other benefits* you gained from your **Intermediate English** course (*two sentences only*)

*My course in English has helped me to .....*

(8) Imagine you have been appointed to teach your **Intermediate English** course.

*Write down ONE THING you would like to introduce to the course.*

*I should like to introduce.....*

(9) I should be willing to take part in a follow-up focus group discussion:

Yes

No

If 'yes', please give contact details (name, email and phone): .....

.....

**The Questionnaire used towards the end of the course was identical, except that "intermediate English was replaced by 'Functional English'**